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WASTE MANAGEMENT PROGRAM MANUAL

This manual is to be used as a guide for Ames Laboratory personnel generating hazardous waste, mixed waste and radioactive waste from Ames Laboratory activities.

1.0 APPROVAL RECORD

- Reviewed by: Amy Tehan, Document Control Coordinator
- Approved by: Tom Wessels, Manager ESH&A
- Approved by: Bruce Harmon, Deputy Director
- Approved by: Michael McGuigan, RSO, ESH&A

The official approval record for this document is maintained in the Training & Records Management Office, 151 TASF.

2.0 REVISION/REVIEW INFORMATION

The revision description for this document is available from and maintained by the author.

3.0 PURPOSE AND SCOPE

Ames Laboratory is responsible for properly managing its waste in a manner that provides for the protection of laboratory employees, the general public and the environment. The Laboratory is required to comply with all applicable local, state and federal regulations.

In order for the Laboratory to manage its waste and comply with these regulations the specific policies and guidelines in this manual have been developed and implemented.

Activity specific waste requirements will be addressed and documented in the activity readiness review file.

Objectives:

- Ensure and maintain the health and safety of Laboratory employees, visitors, and public.
- Protect the environment through proper management of hazardous, radioactive and mixed wastes.

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- Minimize the cost of handling and disposing of hazardous, radioactive, and mixed waste.
- Minimize the generation of hazardous, radioactive, and mixed waste.

3.1 Definitions

Environmental Protection Agency (EPA) – principle role of the EPA is to establish and enforce environmental protection standards.

Hazardous waste - a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may -

- a. Cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness.
- b. Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

Line management - responsibility that begins with the employee's immediate supervisor and extends upward through the line organization to the Laboratory Director.

Mixed waste - waste which contains a hazardous and a radioactive component.

Resource Conservation and Recovery Act (RCRA) – governs the generation, storage, treatment, transportation and disposal of hazardous waste.

Pollution prevention (P2) - the use of any process, practice or product that reduces or eliminates the generation and release of pollutants, hazardous substances, contaminants, and wastes, including those which protect natural resources through conservation or more efficient utilization.

Radioactive waste - For the purpose of this manual, radioactive waste is any unwanted or discarded material, equipment or system component determined to be contaminated by a radionuclide.

Resource conservation - includes practices that increase the efficiency and/or reduce the use of hazardous materials, energy, water or other resources.

Toxic pollutants - substances which are harmful or deadly at low concentrations; any component listed in 40 CFR 261.

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Unbound Nano Particle (UNP) Waste – are **engineered** materials containing nanoparticles between 1-100 nanometers and are not contained within a matrix that would be expected to prevent the particles from being separately mobile and a potential source of exposure. An engineered nanoscale particle dispersed and fixed within a polymer matrix, incapable as a practical matter of becoming airborne, would be “bound”.

Upper management - includes the Laboratory, Associate and Program Directors.

Waste – for the purpose of this manual the word “waste” includes hazardous, radioactive and mixed wastes as they are defined in the Waste Management Program Manual.

Waste generator - anyone who produces any form of waste.

Waste minimization - an action that avoids or reduces the generation of waste by source reduction, improved energy usage, or by recycling. This action will be consistent with the general goal of minimizing present and future threats to human health, safety, and the environment.

4.0 ROLES AND RESPONSIBILITIES

Responsibility for implementation of the Waste Management Program will be assessed according to “bottom-to-top” hierarchy. Emphasis of responsibility at the individual employee level will be most effective since nearly all waste is created at this level.

4.1 Individual Employees

All employees shall follow the waste management manual. By implementing the program at this level, success of the program will greatly increase. Individuals have the following responsibilities:

- Complete and remain current with all waste management related training, including institutional training modules and group/department job/activity specific training.
- Collect all waste in accordance with this manual, unless a written and/or email exemption is issued by ESH&A.
- Identify all waste chemicals or surplus chemicals utilizing technical knowledge within the department or by consulting ESH&A (4-2153).

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- Package and label all waste to be picked-up by ESH&A according to this manual.
- Consult with Group Leaders/Supervisors regarding the safe handling and proper disposal of chemicals. Contact ESH&A (4-2153) for assistance at any time.

4.2 Group Leaders/Supervisors

The primary responsibility of the Group Leaders/Supervisors is to ensure that all personnel under their supervision, including other researchers and Group Leaders receive appropriate training and strictly follow the guidelines in this manual. They also have the responsibility to minimize waste generation by limiting the use of toxic chemicals and/or utilizing chemicals that are less toxic, flammable, and corrosive according to EPA regulations.

4.3 Environment, Safety, Health & Assurance

Environment, Safety, Health & Assurance department (ESH&A) will be responsible for providing guidance and review of DOE funded activities.

In cases of dual funding by the DOE and ISU contact ESH&A (4-2153) for guidance.

Responsibilities of ESH&A:

- Develop and implement policies and procedures for Ames Laboratory.
- Administer the Waste Minimization/Pollution Prevention Program.
- File and retain all required environmental reports.
- Determine type of training needed for those working with hazardous chemicals and radionuclides.
- Provide Ames Laboratory institutional level training.
- Conduct audits of Ames Laboratory space and practices to determine compliance with waste management policies.
- Pick-up and dispose of hazardous, radioactive, and mixed waste.
- Provide assistance to individuals in regards to waste management issues.

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- Notify Group Leaders/Department Managers of regulation changes that may affect the way Ames Laboratory manages hazardous waste.

4.4 Upper Management

The Laboratory Director has ultimate responsibility for environmental, health and safety issues. These responsibilities are delegated to department managers, supervisors and individual employees. Upper management is responsible for enforcing the Waste Management Program Manual policies.

5.0 PREREQUISITE ACTIONS AND REQUIREMENTS

5.1 Training

Employees and students working with chemicals at Ames Laboratory will be required to complete the following:

- Hazardous Waste Generators Training (AL-073)
- Chemical Hazard Communication (AL-137)
- Hazard Identification (AL-130)
- Nano Technology Awareness training (AL-208) if working with nano materials.
- Group Leaders/Supervisors are responsible for providing training in all group/department specific waste handling procedures.

Each program or group/department must keep an accurate and current record of all group/department specific training that has been received. ESH&A will maintain institutional level training records. This and other required training will be documented in the readiness review files for activities.

6.0 HAZARDOUS WASTE MANAGEMENT

Ames Laboratory (AL) generates and manages hazardous waste at all DOE owned buildings. Hazardous waste generated in ISU leased spaces (i.e. Gilman and Zaffarano) is managed by ISU-EH&S. All waste picked up by AL-ESH&A is taken to a storage room where containers are segregated and tracked according to waste classification. The following are procedures to guide Ames Laboratory employees in managing hazardous waste.

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6.1. Hazardous Waste Definition & Identification

A complete definition can be found in the 40 CFR Part 261, subpart C. Ames Laboratory relies almost entirely on process knowledge from individual researchers to identify and characterize their waste. Accurate waste identification is essential to ensure the material is handled safely and managed properly.

A hazardous waste shall be identified in one of two ways. A waste may exhibit a characteristic that causes it to be hazardous by the EPA or the EPA could list it as a hazardous waste.

Characteristic Wastes:

- **Ignitability** – liquids with flashpoint < 60° C, solids that spontaneously ignite flammable gases and oxidizers.
- **Corrosivity** – a liquid with a pH < 2 or pH ≥ 12.5.
- **Reactive** – has the ability to explode or undergo rapid and violent reactions.
- **Toxic** – Harmful or deadly even at low concentrations.

Listed Wastes:

A hazardous waste is considered listed if it is found on the D, F, P or U list in 40 CFR 261.

Note: *Any material contaminated by a characteristic and/or listed waste must also be considered hazardous and managed according to this manual. (i.e. paper, plastic gloves, equipment, spill clean-up debris, etc).*

6.2. Hazardous Waste Collection

It is important to use the appropriate container when collecting hazardous chemicals. A chemical collected in the wrong container could pose a danger to Laboratory personnel, ESH&A personnel, property and the environment.

Use the following guidelines for collecting your waste:

- Use a separate screw top container for each waste generated.
- Use appropriate container size to match the amount of waste generated.

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- Use original chemical containers if appropriately sized.
- All containers must be non-leaking with no protruding objects and tightly capped.
- All containers must be identified and appropriately labeled (see section 6.4 Labeling Requirements).

6.3. Chemical Segregation

Chemical segregation will prevent dangerous reactions and protect laboratory personnel and ESH&A personnel from potentially unsafe working environments.

Use the following guidelines when generating your waste stream.

- Collect inorganic materials separately and do not mix solids with liquids unless the process ("recipe") calls for it.
- Containers with liquids are required to be in secondary containment. Both containers must be compatible with the liquid.
- Collect halogenated and non-halogenated organic solvents in different containers.
- Make sure oxidizers used in organic reactions are completely deactivated prior to placing in sealed containers.
- Collect nano particle materials and contaminated debris containing nano particles separately.
- Keep pump oil separate. Do not mix with other chemicals. If pump oil is known to be contaminated, indicate on container label.
- When in doubt call ESH&A (4-2153) for assistance.

6.4. Labeling Requirements

The Hazardous Waste Label (HWL) should be used on all hazardous waste containers. Use the following guidelines when filling-out the HWL.

- Use proper chemical or common names in identifying chemical compounds.

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- Do not use chemical formulas, symbols, or structural formulas to identify a chemical.
- Enter the start date when the first addition is put into the container.
- Enter the closure date when last addition to the container occurred.
- For nano waste include the words “Contains Nano Particles” in the waste description.
- An example of a properly completed HWL is shown in Appendix A.

6.5. Hazardous Waste Storage

EPA regulates the storage of hazardous waste containers. It is important to follow the guidelines outlined below. Failure to do so could result in EPA issuing fines. EPA allows generators to store waste in Satellite Accumulation Areas (SAA) temporarily.

Ames Laboratory has implemented the following guidelines in order to avoid such fines and to keep workspaces in the Laboratory safe.

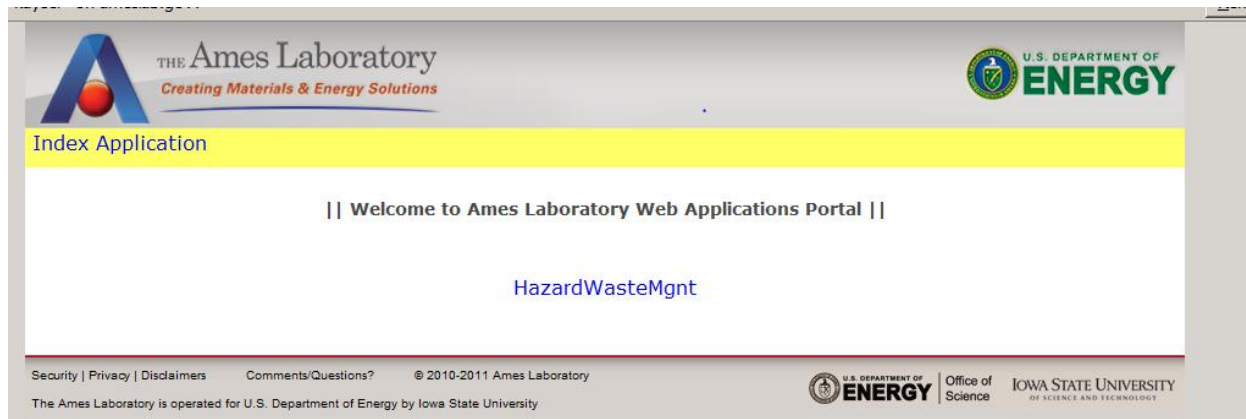
- All waste generated in a laboratory or shop must be stored in the same laboratory or shop. Waste shall not move between buildings or floors.
- Ensure oxidizers used in organic reactions are completely deactivated prior to placing in sealed containers.
- Hazardous waste may be accumulated for a period of 90 days, starting with the first addition to the container. After 90 days or when the container is full, the generator shall follow section 6.6 Waste Acceptance, to have their waste picked-up.
- Liquid waste containers must be stored in secondary containment.
- Containers must always be closed during storage, except when being filled.

6.6. Waste Acceptance

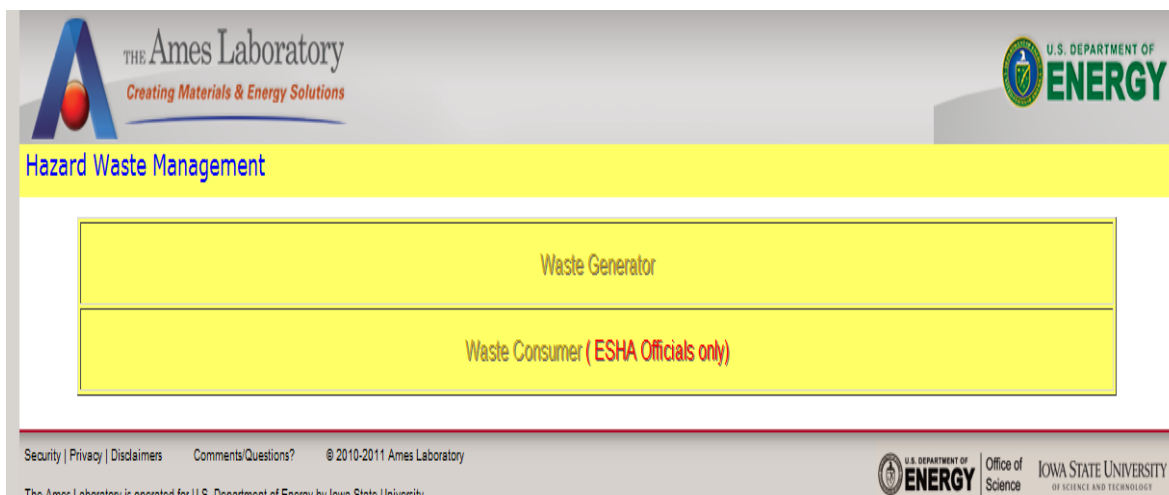
6.6.1 Ames Laboratory Buildings:

The Laboratory uses a web application for picking up and tracking waste. To request a pick-up go to the following link: <https://webapps.ameslab.gov/IndexApp/>

Note: You must contact Information Systems (IS) at IS@ameslab.gov to gain access to the Hazardous Waste Web application.



Once you log in with your network username and password you will click on “Waste Generator”.



Enter the following information on the Waste Generator screen (below).

Container ID: enter your initials and a number (e.g. DAK001)

Location Room: enter the room number where the waste is located and the building from the drop down box.

Chemical Description: enter the major constituents in your waste with percentages. If your waste contains any metals from the TCLP list but you don't know the percent then indicate that there is a trace amount. **NOTE: If you have multiple containers with the**

same constituents and percentages you can copy the text to paste to your next container.

Total Quantity/Container: enter the amount of your waste.

Units: pick the appropriate units. Milliliters or liters for liquids and grams or kilograms for solids.

Hazardous Characteristics: check all that apply.

Waste Generator Screen

Hazard Waste Management

|| ***** For Waste Generator Only ***** ||

Employee Number: 47603	Employee Name : DANIEL KAYSER	Group : 102020	Phone : 294-7923	Pick-ups & Questions Call: Dan Kayser : 294 -7923 ESH&A Office: 294-2153
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Container ID	Location Room <small>[Room, Building]</small>	Chemical Description <small>[include percentage(s)]</small>	Total Quantity/Container	Units
<input type="text"/>	<input type="text"/> <small>Select building</small>	<input type="text"/>	<input type="text"/>	<small>Kg</small>

Hazardous Characteristics	Yes
Ignitibility: Is the flashpoint less than 140 degree F (60 degree C)	<input type="checkbox"/>
Corrosivity: Is the pH less than or equal to 2, or greater than or equal to 12.5	<input type="checkbox"/>
Is the waste normally unstable, water reactive, or explosive? Which	<input type="checkbox"/>
Will the waste liberate cyanide or sulfide? If so which?	<input type="checkbox"/>
Based on your knowledge of the process and the information available (MSDS, manufacturer specifications) to you, does the waste contain any of the materials from the below TCLP list?	<input type="checkbox"/>
Is the waste an Oxidizer?	<input type="checkbox"/>
Contains engineered nano particles 1-100 nanometers in size?	<input type="checkbox"/>

Partial TCLP List		
Metal	Chlorinated Solvents	Organic Solvents
Arsenic	Carbon Tetrachloride Hexachlorobenzene	Benzene
Barium	Chlorobenzene Hexachlorobutadiene	Cresol & Isomers
Cadmium	Chloroform Hexachloroethane	Methyl Ethyl Ketone
Chromium	1,4-Dichlorobenzene Tetrachloroethylene	2,4-Dinitrotoluene
Lead	1,2-Dichloroethane Vinyl Chloride	Nitrobenzene
Mercury	1,1-Dichloroethylene	Pyridine
Silver		
Selenium		

Submit: click the “Submit” button after each entry and repeat above sequence for each additional container. By clicking on the “Submit” button your pick up request is automatically sent to ESH&A.

6.6.2 ISU Owned Buildings and Ames Lab Leased Spaces

ISU Buildings: Go to the following address to submit a pick-up
<http://www.ehs.iastate.edu/cms/default.asp?action=article&ID=368>.

6.7 Biohazardous & Non-Biohazardous Sharps (Packaging and Disposal)

Note: If you are working with biological materials you are required to take “Bloodborne Pathogen Exposure Training” (AL-035). Contact ESH&A for assistance at 4-2153.

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Use the following guidelines for proper packaging and disposal of sharps:

- Keep infectious and non-infectious sharps in a separate container.
- Contain all non-infectious sharps in special metal or plastic containers designed for this purpose. Infectious sharps need to go into a red biohazard disposal box.
- There should be no protruding objects from the containers.
- Lid and caps should be taped and/or secured.
- The non-infectious sharps containers can be purchased at the Ames Laboratory Storeroom. Red biohazard containers can be purchased through Fisher, Lab Safety or other laboratory vendors.
- Follow section 6.6 for requesting a pick-up.

7.0 RADIOACTIVE WASTE MANAGEMENT

NOTE: *The use of radioactive materials must first be approved by Ames Laboratory ESH&A (4-2153).*

The following are procedures that will guide Ames Laboratory personnel in managing their radioactive waste.

7.1 Training

New employees at Ames Laboratory shall receive the appropriate institutional training from ESH&A (i.e. Waste Generator Training, Rad Worker II Training,). Group Leaders/Supervisors are responsible for providing training in all group/department specific waste handling procedures.

Each program or group/department must keep an accurate and current record of all group/department specific training that has been received. ESH&A will maintain institutional training records.

Radioactive waste management training will include the following:

- Awareness and responsibilities of waste generation
- Characterizing and identifying waste
- Accumulation for disposal

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- Record keeping and documentation
- Waste minimization opportunities
- Response to radiological emergencies

7.2 Radioactive Waste Definition & Identification

For the purpose of this procedure, radioactive waste is any unwanted or discarded material, equipment or system component determined to be contaminated with radioactive materials.

Accurate waste identification by the generator is essential for Ames Laboratory to ensure it is handled and disposed of safely. Health Physics personnel will assist with analyses to determine radioactivity and isotopic content of a material.

Note: Any materials used to handle radioactive waste must also be considered radioactive and handled accordingly.

7.3 Storage

A Radioactive Material Management Area (RMMA) is a designated location to store radioactive waste. The RMMA is the appropriate place to store radioactive waste. Radiological material storage within these areas requires that procedures be followed to continue acceptable operation of the RMMA.

The following requirements relate to RMMAs:

A RMMA:

- Shall be the smallest practical area and must be located within a Radiological Controlled Area.
- Should be properly posted, "Caution, Radioactive Material".
- Shall be operated by trained personnel. Personnel shall be trained before entering the RMMA. Contact ESH&A for training requirements and assistance (4-2153).
- Shall use proper disposal procedures for radioactive waste.
- Should not include storage of non-radioactive waste. Storage of hazardous waste in an RMMA is not permitted. Refer to section 6.0 for hazardous waste procedures.

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- Combustible loading in an RMMA shall be minimized and the use of cardboard containers for storage is discouraged.
- Should consider fire protection, such as smoke detectors, water sprinklers, and fire extinguishers when they are established.
- Shall be routinely surveyed by Health Physics personnel.

7.4 Radioactive Solids

A variety of solid radioactive waste products, which vary in half-life and activity, may be encountered when dealing with solid radioactive wastes. This includes such materials as paper, plastics, rubber gloves, glassware, metal tools, and large equipment items.

The cost of disposal will depend directly on the volume and weight of the radioactive waste produced. To minimize the waste volumes requires generators of radioactive waste at Ames Laboratory to use advanced planning, careful facility and equipment design, and control of work methods.

1. It is essential to separate ordinary non-radioactive trash from solid radioactive waste, whenever possible, at the point of origin. For this reason, solid radioactive waste containers shall be clearly identified with the radiation symbol, have a plastic bag liner, and be easily distinguishable from ordinary trash containers.
2. Depending upon the anticipated volume of solid radioactive waste, a suitable container or containers should be placed in the work area. Containers must be approved by ESH&A Health Physics Personnel.
3. The waste generator is required to provide documentation of the identity and estimated quantity of radioactivity and see that the waste is properly labeled and contained. Solid wastes must be segregated at the source into combustible and noncombustible, as well as compressible and noncompressible. One further segregation of solid waste is made. If the waste consists of alpha-emitting material of ^{235}U or radionuclides with Z (atomic number) ≥ 93 , or half-life > 20 years, it is designated transuranic (TRU) waste if the radionuclide concentration is $> 3.7\text{E}6 \text{ Bq/kg}$ (100 nCi/g). (See section 7.6 for specifics on TRU waste requirements.) Secondary containers must be labeled to indicate the category of waste permitted in the container. It is essential that TRU waste be separated from non-TRU waste, since they are disposed of differently.

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4. When a bag is full, it should be removed from the container, sealed and tagged.
5. The tag should include information concerning which radioisotopes are present, their activity (best estimate), the date, user (name of the person filling out the tag), and the building and room number.
6. Contact Health Physics and request a survey of the waste for both external radiation reading and for possible surface contamination (by smear survey). If survey results are within the limits, the waste can be picked up.
7. Following the Health Physics survey, the Radiological Control Technicians (RCTs) will remove the waste and transport it to a radioactive waste storage area. If the waste is in a fiber drum insert, the RCT will remove the fiber drum insert, seal the lid of the drum and remove it from the area. If the waste is in a plastic bag the RCT will simply remove the sealed bag.

7.5 Radioactive Liquids

1. The treatment of liquid wastes is generally more expensive than that of solid wastes. Therefore, it is highly desirable to make special effort to keep liquid wastes to a minimum.
2. As with solid wastes, the liquid wastes must be segregated by the generator at the point of origin. The nature of the waste needs to be identified by the generator also. **DO NOT MIX** radioactive wastes (liquids or solids).
3. Liquid radioactive waste shall be placed into properly labeled containers. Use a compatible container for liquid waste collection and label the container according to section 6.6. Keep liquid waste containers closed at all times to prevent evaporation and to prevent from spilling.
6. Liquid radioactive waste that is soluble or miscible in water should be kept separate from other liquids and the waste tag affixed to containers of such liquids should indicate that the liquid is aqueous.
5. Generators are expected to supply information with respect to the content of the liquid wastes. In particular, the identity and quantity of the radionuclides and the volume of each entry are to be recorded, as well as any other pertinent information regarding the potential chemical activity or hazards of the solution.
6. When containers are full, contact Health Physics who will survey them to determine radiation levels and potential surface contamination.

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7. The RCT will take the waste after the survey is completed.

7.6 Transuranic (TRU) Waste

1. Transuranic waste is defined as a radioactive waste containing more than 100 nanocuries (3,700 becquerels) of alpha-emitting transuranic isotopes (i.e. atomic number >92) per gram of waste with half-lives greater than 20 years

(DOE Manual 435.1-1Chg 1, Radioactive Waste Management).

2. The generation of TRU waste is **strictly forbidden** until approval is granted by AL-ESH&A and the DOE Ames Site Office. Any activity that will or potentially generate TRU waste must go through the readiness review procedure where explicit directions and standard operating procedures shall outline the proper collection, packaging and disposal path of the TRU waste.

7.7 Mixed Waste

1. Since mixed waste contains both chemical and radioactive components, it shall be properly identified using the following definitions.
Hazardous waste is defined and shall be identified as a characteristic or as a listed waste. Refer to the Hazardous Waste Management Section 6.0, for a complete description of hazardous waste identification. Radioactive waste is defined above in sections 7.2 and 7.6.
2. Generation of mixed waste is strictly forbidden until approval is granted by AL-ESH&A and the DOE Ames Site Office, if there is no disposal path for the waste. Any activity that will or potentially generate mixed waste must go through the readiness review procedure where explicit directions and standard operating procedures shall outline the proper collection, packaging and disposal path.

7.8 Labeling Requirements

All known radioactive waste, at a minimum, must be labeled "CAUTION RADIOACTIVE WASTE".

- Labels should have a yellow background with magenta or black standard radiation symbol. Lettering shall also be black or magenta, with magenta being preferred.

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- Labels shall include contact radiation levels, removable surface contamination levels (specified as alpha or beta-gamma), dates surveyed, surveyor's name, and a description of contained radionuclides with their respective concentrations.

For further information on labeling contact ESH&A Health Physics (4-2153).

7.9 Radioactive/Mixed Waste Pick-ups

Follow section 6.6 of this manual when requesting a radioactive waste pick-up. Contact ESH&A (4-2153) for pick-up and/or questions.

8.0 SPILL RESPONSE

Accidental release of chemicals occasionally occurs as a result of spills, leaks, etc. When a release happens there is the potential for harmful effects. Contingency planning can minimize potential problems and enhance personnel's ability to deal with routine spills effectively. Group Leaders, Department Managers and/or Supervisors are responsible for developing a "site specific" contingency plan for their locations and for training personnel under their supervision.

Ames Laboratory has set the following criteria for reporting and cleaning-up spills.

- Releases less than 1 liter of waste, generators may clean up the waste themselves. Contaminated material/debris shall be managed according to section 6.0 Hazardous Waste Management.
- Spills greater than 1 liter must be reported to ESH&A (4-2153). Generators may clean up provided they have sufficient training and equipment to do so.
- Releases more than 4 liters, Plant Protection shall be notified immediately (4-5511), and they will initiate the appropriate response.

Regardless of quantity the following should be reported immediately to Plant Protection (4-5511) and/or ESH&A (4-2153).

- All spills of extremely flammable materials (flash point less than 20° F).
- All spills of extremely corrosive materials.
- All spills of extremely toxic materials.

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- All mercury spills.
- All radiological spills.
- All personal contamination.
- All leaking containers.
- All uncontrolled compressed gas releases.

9.0 WASTE MINIMIZATION/POLLUTION PREVENTION AND ENVIRONMENTALLY PREFERRED PURCHASING

With respect to hazardous waste, proper Wmin/P2 & EPP procedures include:

- Use the least toxic material available to perform a process.
- Purchase the least amount of material/chemical necessary.
- Recycle or reuse spent chemicals when possible.
- Complete the recycling loop by purchasing items containing recycled materials.

For more on waste minimization, pollution prevention and environmentally preferred purchasing go to the Laboratory's "Waste Minimization/Pollution Prevention Plan at <http://www.ameslab.gov/operations/esha/pollution-prevention>.

10.0 ADDITIONAL INFORMATION

Appendix A Hazardous Waste Label (example)

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APPENDIX A

Hazardous Waste Label Example

**HAZARDOUS WASTE
AMES LABORATORY**

GROUP: MPC / Jones
 BLDG: MD ROOM: 304
 CONTAINER I.D.: LJ 103
 START DATE: 10-20-08
 CLOSURE DATE: 01-16-09

Hazardous Properties: Check all that apply.

<input checked="" type="checkbox"/> Toxic	<input type="checkbox"/> Reactive
<input type="checkbox"/> Corrosive	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Ignitable	

For ESH&A
Use Only

CHEMICAL NAME	QUANTITY (wt/vol)	DATE
<u>Sulfuric Acid</u>	<u>90%</u>	
<u>Water</u>	<u>10%</u>	
<u>Lead - trace</u>		

Do not mix hazardous waste with non-hazardous waste.
 Do not mix hazardous waste with radioactive waste.
 Do not mix inorganic waste with organic waste.
 Do not mix halogenated solvents with other solvents.
 Store in a designated location with secondary containment.
 Keep non-compatible chemicals separated during storage.
 Contact ESH&A at 4-9277 or 4-2153 for disposal.